

Appl. No. 10/735,063
Response dated August 13, 2007
Reply to Office Action of May 11, 2007

REMARKS

Claim 1 has been amended. Claims 3, 7 – 10, 12 – 14, 17, and 21 remain withdrawn. Claims 2, 11, 15, 16, and 18 – 20 remain as previously or originally presented. Claims 4, 5, and 6 have been cancelled.

Claims 1, 2, 4 - 6, 11, 15, 16, and 18 – 20 have been rejected under 35 USC §103(a) as being unpatentable over Lahtinen in view of either Inoue et al. or Horowitz et al. The Examiner argues that Lahtinen discloses the present vascular construct essentially as claimed but fails to disclose the method for imparting sulfonic acid on the polypropylene surface, which can be learned from Horowitz et al. or Inoue et al. However, independent claim 1, from which the remaining rejected claims all depend, has been amended to include the limitation of dependent claims 5 and 6. That is, the present claims require that a basic molecule, polylysine, is ionically bound to the sulfonic groups and then to the biomolecule albumin. While Lahtinen may disclose that it is advantageous for the blood contacting surface of a vascular construct to present such a biocompatible protein, the reference fails to disclose any means for immobilizing such. Horowitz et al. and Inoue et al. disclose surface sulfonylation but do not disclose a means for immobilizing a biocompatible protein on such a surface. The present claims require that the albumin is ionically bound to polylysine which is ionically bound to sulfonic acid groups on the blood contacting surface. As was discussed in the prior response and noted in the present specification at page 7, lines 4 – 7:


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The anion-forming surface is then neutralized with an organic base, or polycations such as polylysine, so as to infer a net positive charge on the surface. This, in turn, is allowed to immobilize one, or more, biocompatible protein with minimum or no change in its conformation.

The Examiner's assertion that the prior amendment to claim 1 failed to require a specific sequence of bonding is not clearly understood. The order in which these attachments are made is irrelevant to the present device claims and would be more appropriately set forth in method claims. However, the present claims clearly require the following arrangement: construct surface, sulfonic acid groups, polylysine, albumin. As such arrangement is neither anticipated by nor rendered obvious by any combination of Lahtinen and Horowitz et al. or Inoue et al. it is requested that the Examiner reconsider and withdraw the present rejection.

Accordingly, it is submitted that the present case is in condition for allowance and such action is respectfully requested. Please address all correspondence to the below-indicated address.

Respectfully submitted,


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